REMARKS

After entry of this amendment, claims 1, 3-12, 14-17, 19, 21-26, 28-31, and 36-48 are pending. In the present Office Action, claims 36-48 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Birrittella et al., U.S. Patent No. 5,797,035 ("Birrittella") in view of Scott et al., U.S. Patent No. 5,748,900 ("Scott"). Applicants respectfully traverse this rejection and request reconsideration. Claims 1, 3-12, 14-17, 19, 21-26, 28-31 are allowed.

Claims 36-48

Applicants respectfully submit that each of claims 36-48 recites a combination of features not taught or suggested in the cited art. For example, claim 36 recites a combination of features including: "the plurality of virtual channels comprise at least a response virtual channel, a first virtual channel, and a second virtual channel, and wherein the node comprises circuitry that is configured to transmit response packets *only* in the response virtual channel, the response packets generated by the node in response to packets in *any* of the plurality of virtual channels that are defined to cause a response packet, wherein at least one packet assigned to the first virtual channel is defined to cause a response packet and at least one packet assigned to the second virtual channel is defined to cause a response packet".

The Office Action rejects claims 36-48 based on Birrittella and Scott, but fails to refer to the claim language of claims 36-48. Rather, the Office Action states, for example: "Scott discloses storing response packets in a response buffer independent of which virtual channel the packet belongs" (Office Action, page 3, last paragraph). Thus, Applicants submit that the rejection must be withdrawn because the rejection does not illustrate how Birrittella and Scott allegedly teach the features of claims 36-48.

Furthermore, Applicants can find no teaching in Birrittella, Scott, or the combination thereof that teaches or suggests the combination of features recited in claim 36. The Office Action generally refers to Scott with respect to response packets and handling thereof, only referring to Birrittella in the most general terms. Specifically, the

Office Action refers to Scott col. 8, lines 9-17. However, these teachings are: "Buffers 260, 270, 280 and 290 are partitioned by setting bitmasks stored in designated memory mapped registers (MMRs) 295. The set of buffers usable by each virtual channel can overlap in arbitrary ways; some buffers may be dedicated to a single virtual channel 250, some buffers may be shared by a set of virtual channels 250, and some buffers may be shared by all virtual channels 250. However, at least one buffer must be reserved for response packets. This requirement is in order to avoid deadlock." Generally, these teachings describe allocation of buffers to various virtual channels. Applicants respectfully submit that these teachings do not teach or suggest "the plurality of virtual channels comprise at least <u>a response virtual channel, a first virtual channel, and a second virtual channel</u>, and wherein the node comprises circuitry that is configured to transmit response packets <u>*only* in the response virtual channel</u>, the response packets generated by the node in response to packets in <u>*any* of the plurality of virtual channels</u> that are defined to cause a response packet, wherein at least one packet assigned to the first virtual channel is defined to cause a response packet and at least one packet assigned to the second virtual channel is defined to cause a response packet" as recited in claim 36.

Instead, Scott teaches a set of four virtual channels: "a read request channel (VC0) 250.0, a write request channel (VC1) 250.1, a channel for messages and read responses (VC2) 250.2 and a channel for write responses (VC3) 250.3" (Scott, col. 7, lines 61-64). Thus, a read request in VC0 results in a read response in VC2, and a write request in VC1 results in a write response in VC3. Therefore, the response virtual channel used for a response to a given request is one of two responsive virtual channels dependent on which of the two request virtual channels carries the request that causes the response. None of these teachings not teach or suggest "the plurality of virtual channels comprise at least <u>a response virtual channel, a first virtual channel, and a second virtual channel</u>, and wherein the node comprises circuitry that is configured to transmit response packets <u>*only* in the response virtual channel</u>, the response packets generated by the node in response to packets in <u>*any* of the plurality of virtual channels</u> that are defined to cause a response packet, wherein at least one packet assigned to the first virtual channel is defined to cause a response packet and at least one packet assigned to the second virtual

channel is defined to cause a response packet" as recited in claim 36. Furthermore, nothing in Birrittella or the combination of Birrittella and Scott teaches or suggests the combination of features recited in claim 36.

For at least all of the above stated reasons, Applicants submit that claim 36 is patentable over the cited art. Claims 37-42 depend from claim 36, and thus are patentable over the cited art for at least the above stated reasons as well. Each of claims 37-42 recites additional combinations of features not taught or suggested in the cited art.

Claim 43 recites a combination of features including: "the plurality of virtual channels comprise at least <u>a response virtual channel, a first virtual channel, and a second virtual channel, and</u> wherein a first node of the plurality of nodes is configured to transmit response packets <u>only in the response virtual channel</u>, the response packets generated by the first node in response to receiving packets from other ones of the plurality of nodes in any of the plurality of virtual channels, the response packets generated by the first node in response to packets that are defined to cause a response packet, wherein at least one packet assigned to the first virtual channel is defined to cause a response packet and at least one packet assigned to the second virtual channel is defined to cause a response packet". The teachings of Birrittella and Scott, highlighted above, do not teach or suggest the combination of features recited in claim 43, either.

For at least all of the above stated reasons, Applicants submit that claim 43 is patentable over the cited art. Claims 44-48 depend from claim 43, and thus are patentable over the cited art for at least the above stated reasons as well. Each of claims 44-48 recites additional combinations of features not taught or suggested in the cited art.

Statement of Substance of Interview

On March 24, 2004, Applicants and the Examiner had a telephonic interview. There was no exhibit or demonstration was discussed. Claims 36-48 were discussed, and the prior art was discussed including Birrittella and Scott as identified above. Specifically, the Office Action's reference to language not in claim 36 or 43 (e.g. the

"storing response packets in a response buffer independent of which virtual channel the packet belongs", as highlighted above) was discussed. Additionally, reasons why claims 36 and 43 are patentable over Birrittella and Scott, similar in nature to those presented above, were discussed. Potential claim amendments similar in nature to some amendments made in this response were discussed.
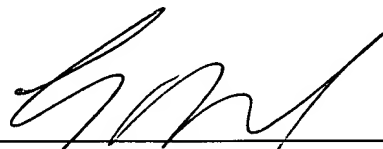
CONCLUSION

Applicants submit that the application is in condition for allowance, and an early notice to that effect is requested. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5500-46201/LJM.

Also enclosed herewith are the following items:

☒ Return Receipt Postcard

☐ Petition for Extension of Time

☐ Request for Approval of Drawing Changes

☐ Notice of Change of Address

☐ Other:

Respectfully submitted,

Lawrence J. Merkel
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AGENT FOR APPLICANT(S)

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